

SOP for Refurbishment of Experimental Huts

Purpose: The purpose of this document is to provide instructions on the refurbishment of experimental huts after indoor residual spray treatments. It is important that there be no carryover contamination from one trial to the next. In some cases, this may be done during a trial in order to effectively rotate treatments through the different

Appendix: FORM AVECNET EH 012.01

Definitions

IRS Indoor residual spray
SOP Standard operating procedure

Scope

This document is applicable to all staff of the project involved in the refurbishment of experimental huts.

Responsibilities

It is the responsibility of the Study Director and individuals with responsibility for refurbishing huts and general preparation of experimental hut studies to follow this SOP AVECNET EH 011.01 and use the associated data sheet FORM AVECNET EH 011.01

Staff required

1. Data Recorder
2. Person responsible for huts

Instructions

1. List of procedures

- 1.1. Removal of wall surfaces
- 1.2. Cleaning of the hut
- 1.3. Bioassays to confirm absence of contamination
- 1.4. Recording of date of refurbishment and bioassay results

2. Equipment

- 2.1. It is expected that the work in removal and refurbishment of the wall surfaces will be done by an experienced builder/mason. The equipment that this person will use is not included in this list. For the bioassays to confirm the absence of contamination after the refurbishment

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refer to the SOP on “Conducting cone bioassays in experimental huts” (SOP AVECNET EH 004.01).

3. Method

- 3.1. A meeting will be conducted with the builder/mason who is to do the work to explain the purpose of the removal of the wall surfaces so that this is clearly understood by not only the mason, but the people who will be working with the mason.
- 3.2. Before beginning work, the bed, exit traps, and all other objects will be removed from the room. If there is serious concern of contamination, a drop cloth may be laid on the floor so that the wall chippings can be removed from the hut without risk of contaminating other surfaces.
- 3.3. The surface of the walls will then be removed by carefully removing the layer of cement that has covered the cement bricks of the hut. Usually this will be done using an object such as a pickaxe, which can chip away the cement without damaging the bricks.
- 3.4. The date that the chipping away of wall surfaces begins should be recorded on the sheet
- 3.5. Once all the wall surfaces have been removed, the cement chippings should be removed from the hut. The hut should be swept clean before any refurbishment begins.
- 3.6. When this has been done, the walls can be refurbished. This is usually done using a cement, sand, water mixture. If possible, the ratio of cement to sand to water should be recorded. If a tint is desired to improve the visibility of the mosquitoes, it may be added at this time.
- 3.7. Thickness of cement or mud on the wall is to be between xx and xx as determined by the study protocol.
- 3.8. The method of preparing cement/mud etc. is to be detailed in a separate SOP.
- 3.9. Once the walls have set, the entire hut should be cleaned. Any non-wall surface (window frames, door, door frame, and floor) should be cleaned using a common laundry detergent (ie. Omo). The surfaces should be scrubbed to ensure no contaminated dust remains. After cleaning with soap, the surfaces should be rinsed liberally with water. There should be no soap residue remaining. After cleaning the hut is to be left for 24 hours for the surfaces to dry.
- 3.10. After this cleaning has been conducted, the bed, exit traps, and any other materials normally stored in the hut can be returned to the hut.

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- 3.11. Bioassays should be conducted in the huts no sooner than 5 days after the refurbishment (allowing the cement to fully dry). This is done to ensure that there is no contamination remaining in the hut. A minimum of 6 cones (10 mosquitoes each) should be used, one placed on each wall, one on the floor and one on the ceiling, according to the SOP "Conducting cone bioassays in experimental huts" (SOP AVECNET EH 004.01). The mortality results should be compared with the cone bioassay results from the control hut. If all huts are being refurbished, or if there is no control hut, then mortality should be less than 10%.
- 3.12. If mortality is above 10%, repeat the bioassays to verify the data. If the second round of testing results in mortality above 10% then a further round of cleaning the hut is required after which a third round of bioassays is conducted. If mortality remains above 10% at this point it will be necessary to repeat the refurbishment of the contaminated hut.
- 3.13. The results from the bioassays should be kept with the data sheet detailing the progress of the refurbishment.
- 3.14. Take the study procedure log and data sheets to study director for verification.

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